



## **Texas Department of Transportation**

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

May 18, 2010

The Council on Environmental Quality  
Attn: Ted Boling  
722 Jackson Place, NW  
Washington, DC 20503

Dear Mr. Boling:

The Texas Department of Transportation (TxDOT) appreciates this opportunity to provide comments on the "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions" released by the Council on Environmental Quality (CEQ) on February 18, 2010.

TxDOT wishes to express its support for the comments submitted by the American Association of State Highway and Transportation Officials (AASHTO). AASHTO's comments capture the major points of concern for state transportation agencies; however, TxDOT requests CEQ's consideration of some additional concerns.

Application of this guidance to transportation projects will be a challenge. Most of the specific information in the guidance is more applicable to stationary sources than to transportation projects, and will therefore require transportation project analysts to either adapt or develop methods to apply the guidance.

The introduction to the guidance advises agencies to consider in the scoping process whether the direct and indirect greenhouse gas (GHG) emissions of a proposed action may provide meaningful information to decision makers and the public. It is not clear what would be considered direct emissions as opposed to indirect emissions for transportation projects. The distinction is critical in determining how to interpret the suggested indicator value. The determination of how to define direct and indirect impacts for transportation projects, and the decision of how to apply the indicator value, is best left to the discretion of federal transportation agencies. TxDOT recommends that CEQ give agencies substantial deference with respect to such decisions.

Additionally, the analysis of GHG emissions would provide no meaningful information to the decision-makers or the public, but instead would likely result in delays and litigation. Current analysis methods are not sufficiently sensitive to distinguish between alternatives for a transportation project. For example, weighing the emissions levels of a single action decision versus a no-action decision is difficult because the amount of

travel is generally comparable with the major differentiating factor being the level of congestion. Analysis of GHG emissions relies upon a great number of assumptions, and carries substantial levels of uncertainty.

Transportation agencies should focus on addressing transportation issues through a variety of multimodal solutions. Regardless of the goals or strategies selected, transportation solutions alone cannot sufficiently address GHG emissions. Ultimately, answers will come from energy independence and technological advances for all modes of transportation, including light-duty vehicles, freight trucks, aircraft, marine vessels, and rail.

Further scientific advancement is needed before GHG emissions can be considered in a meaningful way for individual projects. For example, change in vehicle technology is an important consideration in any analysis. Vehicle emissions account for the bulk of emissions attributable to transportation, and improvements in fuel efficiency can have a great effect on overall emissions levels. The recent U.S. Department of Transportation report to Congress titled "Transportation's Role in Reducing U.S. Greenhouse Gas Emissions" states that 29 percent of all GHG emissions in the U.S. are from burning fuel to power U.S. vehicles. Of that 29 percent, 59 percent are from light-duty vehicles, 19 percent from freight trucks, 12 percent from aircraft, 5 percent from marine vessels, and 3 percent from rail. It is estimated that more fuel efficient gasoline vehicles could reduce per-vehicle emissions by 8-30 percent, hybrid vehicles by 26-54 percent, and plug-in hybrids could reduce per-vehicle emissions by 46-75 percent. Comparatively, strategies to reduce vehicle miles traveled (VMT) could have only a 5-17 percent reduction.

Taking these varying figures into consideration, it is apparent that the assumptions regarding fleet characteristics used in GHG analysis could have a large effect on the analysis results. It is likely that the bulk of text in a NEPA document would actually be explaining the assumptions and uncertainties involved in the analysis, rather than the analysis itself. Therefore, it is reasonable to question whether analysis results would provide meaningful information that is reliable enough to inform a decision between alternatives for a specific project. An analysis that includes such uncertainty as to make it an unreliable source for decision-making and unhelpful to the general public is an unwise use of already scarce resources. Further scientific advancement is needed before GHG emissions can be considered in a meaningful way for individual projects.

Projected land use change is another important assumption in GHG analysis. The guidance discusses evaluating mitigation for GHG emissions, and mitigation strategies could potentially involve land use decisions. This is an especially important concern for Texas, where even local governments have limited authority to regulate land use. If

federal or state agency actions are interpreted by local governments as impinging upon their authority, relationships with these important local partners could become strained. Any federal requirement requiring a state agency like TxDOT to become involved in land use decisions may not be possible within the limits of its authority.

Additionally, although the guidance does recognize that transportation programs may lend themselves to programmatic approaches; it is silent on whether a programmatic effort at the planning level would meet guidance requirements. TxDOT recommends that each agency and state have the latitude to determine the most appropriate approach for analysis of GHG emissions for their projects. Analysis may be more meaningful for a plan or program of transportation projects than for a single project, as available tools are better suited for this type of programmatic analysis. If GHG analyses were prepared for transportation plans, then NEPA documents for individual projects could potentially incorporate the overall analysis by reference. This would capture the cumulative effects of all transportation projects in a given area for a specific timeframe. The results would still rely on a great number of assumptions and involve a great deal of uncertainty, but could potentially give a better picture of how emissions related to transportation fit within the overall issue. As the guidance states, climate change is a global problem that results from global GHG emissions. On a global scale, a metropolitan area or even a state is still a very tiny piece of the overall puzzle, and a single project is so miniscule that the effects are unlikely to be apparent. Such a programmatic approach would also reduce the number of analyses required, and therefore conserve resources, but still address the same concerns. Minimizing expenditures is a key concern for TxDOT as resources are increasingly constrained.

Furthermore, none of the methods of assessing GHG emissions described in the guidance appear to be applicable to transportation projects. The guidance includes a statement advising agencies to use inter-agency consultation with available expertise to identify and follow the best available procedures for those activities that are not adequately addressed by the listed reporting protocols. Identification and development of methods for addressing this issue for transportation projects is already the focus of numerous research projects. In 2009, Transportation Research Board (TRB) studies indicated research needs for climate change were \$250,000,000 over a six-year period in order to provide tools, data, and knowledge with which to address transportation, climate change, and greenhouse gas emission reductions. It does not appear that implementation of the final guidance would allow sufficient time for appropriate analysis methods to be developed before requiring such analyses to be incorporated into the NEPA process.

Analysis that determines the level of GHG emissions attributable to a specific project lacks meaning without an appropriate context or goal to which the results may be

compared. An overall goal and complimentary strategies for GHG emissions reductions need to be developed at the national level for each federal agency. Then, states and local governments could use the national goals as a baseline to analyze activities within their jurisdictions.

In addition to recommending analysis of GHG emissions resulting from proposed projects, the guidance recommends that agencies consider the potential effects of climate change on proposed projects. In practice, this would be difficult to accomplish, since there are multiple climate change forecasts with a wide range of potential effects. For example, FHWA Gulf Coast research suggests Texas may experience a 2 – 55 inch sea-level rise over the next 100 years. At the low end, there is very little effect on the coastal infrastructure, and at the high end it is a significant effect on coastal infrastructure. The guidance recommends using such projections to consider the integrity and vulnerability of proposed projects. The sensitivity, location, and timeframe of the proposed action are factors to be considered during scoping when determining whether or not to emphasize climate change impacts. The potential effects of climate change could have a variety of impacts on the approach to a proposed project, ranging from design considerations to project selection. Consider, for example, a proposed bridge along the Gulf Coast. The potential for sea level rise could affect the length and height of the bridge needed, but designers would need to know the amount of sea level rise to consider. Since the research identifies a large range in the magnitude of sea level rise, a decision would be needed regarding which projection was most appropriate to use. The most conservative approach would be to use a worst-case scenario of 55-inches. Designing a bridge for this scenario could increase the cost of the bridge substantially. It is likely, especially given the current financial constraints, that such a project would be prohibitively expensive, while a design that accounts for a lower projection of sea level rise would be financially feasible. Such issues would likely arise for all projects in close proximity to coastlines and floodplains.

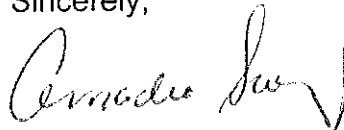
Considering the potential effects of climate change on proposed projects presents problems in two areas. The first is the risk associated with selecting the appropriate climate change scenario to consider. The Gulf Coast study described above is but one example of the many climate studies that exist. Currently, no single climate change forecast is widely accepted as the most likely scenario for future climate change effects. The lack of scientific consensus regarding these projections means that any selection would likely be vulnerable to challenge. The guidance recommends keeping the extent to which the effects of climate change are documented in proportion using NEPA's "rule of reason", but it may be difficult for agencies to balance this recommendation against managing potential risk. A national framework to advise states and local governments in selecting the appropriate forecast to use could help to minimize risk to state and local agencies.

The second potential issue relates to project selection. If the effects of climate change suggest that some projects may not be feasible, either due to cost or vulnerability, it is likely that those projects would not move forward. Since many of these considerations are linked to geographic factors, it is possible that some communities in coastal, low-lying, or other vulnerable areas may not have any projects selected.

This could potentially lead to a number of equity considerations. If communities in vulnerable locations are already traditionally underserved or consist of environmental justice populations, access to services would not improve. Additionally, some jurisdictions could potentially lose competitiveness for already scarce federal resources. If climate change considerations substantially raise the costs of infrastructure in areas subject to the potential effects of climate change, jurisdictions along coastlines and major waterways may not be able to do as much with the funds they do receive.

Climate change and GHG emissions are likely to continue to be topics of great public interest. As CEQ works to finalize the guidance, we ask you to keep in mind that the science is still in its relative infancy. Scientific and technological limitations present obstacles to the practical application of this guidance, and we encourage the CEQ to acknowledge these challenges and grant deference to agencies in finding solutions. TxDOT appreciates this opportunity to comment, and hopes that CEQ will consider these comments in finalizing the guidance.

Sincerely,

A handwritten signature in dark ink, appearing to read "Amadeo Saenz, Jr.", with a stylized flourish at the end.

Amadeo Saenz, Jr., P.E.  
Executive Director